

Send all "SIT-1" Kits to

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

CAUTION: Conduct a survey of the outside of each package placed in the U.S. Mails.  
Any reading over 0.5 mr/hr at contact with envelope or package shall not  
be mailed.

LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp, Metals Div  
Address PO Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Pu-238, Co-57, Fe-55, Cd-109 ACTIVITY 30 mCi, 1 mCi, 20 mCi, 3 mCi  
IDENT./SERIAL NO. 7222/3C-633, 23, A-962 LEAK TEST DATE 6/16/83  
SMEAR TAKEN BY DR Brosnan

Do Not Write Below This Line

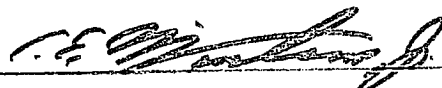
This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage under our Texas Radioactive Material License No. 11-871  
(copy available upon request)

ALPHA	BETA-GAMMA
1.0005	1.0005

Our findings show the leakage to be

uCi. (Wet)

Certified by



Date 6/18/83

(Todd Health Physics Representative)

**SUNTRAC SERVICES, INC.**

TSC-RT-36  
Rev. 4  
5/2/80

UCCNHT0001368

**TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION**  
**SEALED SOURCE INTEGRITY TEST SERVICES**

The Todd Research & Technical Division SIT-1 Kit is designed for use with all alpha or beta-gamma emitting sources. It may also be used for testing large gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

In special cases where a source is permanently fixed into a system, the closest and most accessible surface such as conical port, source housings, etc., may be taken as the smear area. The kit consists of one piece of filter cloth in a plastic zip-lip envelope, wet with our decontamination solution.

For license approval of our service, please refer to "Todd Research & Technical Division SIT-1 Kit" in your application to your State, Division of Licensing, or the NRC Division of Licensing.

**CAUTION**

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away, work with your arms extended.
4. Conduct a dry-run on all sources in excess of 1 mCi to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 cc of water, which renews its effectiveness for testing.

**TO PERFORM TEST**

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Replace the source back into its shielded container.
5. Place the plastic envelope, along with the completed "Leak Test Inventory and Report Form" in the supplied self-addressed envelope and mail to Todd Research & Technical Division.
6. Upon receipt of your completed data sheet and smears from your test kit, Todd Research & Technical Division will perform the necessary assay and evaluation and will issue a certification of the results. The certificate should be retained for review by your licensing authority upon request.

# TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

## SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research & Technical Division SIT-1 Kit is designed for use with all alpha or beta-gamma emitting sources. It may also be used for testing large gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

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For license approval of our service, please refer to "Todd Research & Technical Division SIT-1 Kit" in your application to your State, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all sources in excess of 1 mCi to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Replace the source back into its shielded container.
5. Place the plastic envelope, along with the completed "Leak Test Inventory and Report Form" in the supplied self-addressed envelope and mail to Todd Research & Technical Division.
6. Upon receipt of your completed data sheet and smears from your test kit, Todd Research & Technical Division will perform the necessary assay and evaluation and will issue a certification of the results. The certificate should be retained for review by your licensing authority upon request.

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div  
Address P.O. Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Cs 137 ACTIVITY 50 mCi  
IDENT./SERIAL NO. CS-2225 (stock formice) LEAK TEST DATE 5/23/83  
SMEAR TAKEN BY D R Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage under our Texas Radioactive Material License No. 11-871  
(copy available upon request).

Our findings show the leakage to be

ALPHA	BETA-GAMMA
—	<.0005

uCi. (Wet)

Certified by C.E. McIntyre Date 5/27/83  
(~~TSC~~ Health Physics Representative)  
SONTRAC SERVICES, INC.

# TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

## SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research & Technical Division SIT-1 Kit is designed for use with all alpha or beta-gamma emitting sources. It may also be used for testing large gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

In special cases where a source is permanently fixed into a system, the closest and most accessible surface such as conical port, source housings, etc., may be taken as the smear area. The kit consists of one piece of filter cloth in a plastic zip-lip envelope, wet with our decontamination solution.

For license approval of our service, please refer to "Todd Research & Technical Division SIT-1 Kit" in your application to your State, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially, when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all sources in excess of 1 mCi to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Replace the source back into its shielded container.
5. Place the plastic envelope, along with the completed "Leak Test Inventory and Report Form" in the supplied self-addressed envelope and mail to Todd Research & Technical Division.
6. Upon receipt of your completed data sheet and smears from your test kit, Todd Research & Technical Division will perform the necessary assay and evaluation and will issue a certification of the results. The certificate should be retained for review by your licensing authority upon request.

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Pu 238, Co 57, Fe 55, Cd 109 ACTIVITY 30mCi, 1mCi, 20mCi, 3mCi  
IDENT./SERIAL NO. 7222/3, C-633, 23, A-962 LEAK TEST DATE 12/16/82  
SMEAR TAKEN BY D.R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage under our Texas Radioactive Material License No. 11-871  
(copy available upon request).

Our findings show the leakage to be


ALPHA	BETA-GAMMA
<u>1.0005</u>	<u>1.0005</u>

uCi. (Wet)

Certified by

C.E. [Signature]

Date 12/20/82

( Health Physics Representative)

**SUNTRAC SERVICES, INC.**

# TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

## SEALED SOURCE INTEGRITY TEST SERVICES

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In special cases where a source is permanently fixed into a system, the closest and most accessible surface such as conical port, source housings, etc., may be taken as the smear area. The kit consists of one piece of filter cloth in a plastic zip-lip envelope, wet with our decontamination solution.

For license approval of our service, please refer to "Todd Research & Technical Division SIT-1 Kit" in your application to your State, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all sources in excess of 1 mCi to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Replace the source back into its shielded container.
5. Place the plastic envelope, along with the completed "Leak Test Inventory and Report Form" in the supplied self-addressed envelope and mail to Todd Research & Technical Division.
6. Upon receipt of your completed data sheet and smears from your test kit, Todd Research & Technical Division will perform the necessary assay and evaluation and will issue a certification of the results. The certificate should be retained for review by your licensing authority upon request.

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Pu 238, Co 57, Fe 55, Cd 109 ACTIVITY 30mCi, 1mCi, 20mCi, 3mCi  
IDENT./SERIAL NO. 7222/3, C-633, 23, A-962 LEAK TEST DATE 6/16/82  
SMEAR TAKEN BY D.R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage under our Texas Radioactive Material License No. 11-871  
(copy available upon request).

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>4.0005</u>	<u>4.0005</u>

uCi. (Wet)

Certified by

C. F. [Signature]

Date

6/20/82

(~~Health~~ Health Physics Representative)

**SUNTRAC SERVICES, INC.**

TSC-RT-36  
Rev 4

UCCNHT0001375



# TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

## SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research & Technical Division SIT-1 Kit is designed for use with all alpha or beta-gamma emitting sources. It may also be used for testing large gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

In special cases where a source is permanently fixed into a system, the closest and most accessible surface such as conical port, source housings, etc., may be taken as the smear area. The kit consists of one piece of filter cloth in a plastic zip-lip envelope, wet with our decontamination solution.

For license approval of our service, please refer to "Todd Research & Technical Division, SIT-1 Kit" in your application to your State, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all sources in excess of 1 mCi to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Replace the source back into its shielded container.
5. Place the plastic envelope, along with the completed "Leak Test Inventory and Report Form" in the supplied self-addressed envelope and mail to Todd Research & Technical Division.
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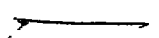
LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Cd 109 ACTIVITY 3 mCi  
IDENT./SERIAL NO. A-962 LEAK TEST DATE 12/16/81  
SMEAR TAKEN BY D.R. Brosnahan

Do Not Write Below This Line

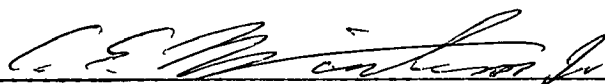
This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage under our Texas Radioactive Material License No. 11-871  
(copy available upon request).

Our findings show the leakage to be

ALPHA	BETA-GAMMA
	<u>1.0005</u>

uCi. (Wet)

Certified by



Date 12/21/81

(~~Todd~~ Health Physics Representative)

SUNTRAC SERVICES, INC.

# TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

## SEALED SOURCE INTEGRITY TEST SERVICES

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### CAUTION

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2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all sources in excess of 1 mCi to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Replace the source back into its shielded container.
5. Place the plastic envelope, along with the completed "Leak Test Inventory and Report Form" in the supplied self-addressed envelope and mail to Todd Research & Technical Division.
6. Upon receipt of your completed data sheet and smears from your test kit, Todd Research & Technical Division will perform the necessary assay and evaluation and will issue a certification of the results. The certificate should be retained for review by your licensing authority upon request.

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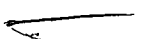
LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Fe 55 ACTIVITY 20 mCi  
IDENT./SERIAL NO. 23 LEAK TEST DATE 12/16/81  
SMEAR TAKEN BY D.R. Brosnahan

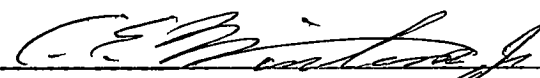
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This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage under our Texas Radioactive Material License No. 11-871  
(copy available upon request).

Our findings show the leakage to be

ALPHA	BETA-GAMMA
	<u>1.0005</u>

uCi. (Wet)

Certified by  Date 12/21/81  
(Todd Health Physics Representative)  
Santovac Services, Inc.

TSC-RT-36  
Rev. 4

UCCNHT0001379

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

In special cases where a source is permanently fixed into a system, the closest and most accessible surface such as conical port, source housings, etc., may be taken as the smear area. The kit consists of one piece of filter cloth in a plastic zip-lip envelope, wet with our decontamination solution.

For license approval of our service, please refer to "Todd Research and Technical Division SIT-1 Kit" in your application to State of Texas, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on <sup>60</sup>Co up to 40 mCi and <sup>137</sup>Cs up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding ½ cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Place the plastic envelope, along with the "Leak Test Request and Report Form" in the supplied self-addressed envelope and mail to Todd Research and Technical Division.
5. Upon receipt of your completed data sheet and smears from your test, Todd Research and Technical Division will perform the necessary evaluation and will issue a certification of the results. The certificate should be retained for review by the Texas State Compliance Division upon request.

Send all requests to:

**TODD RESEARCH & TECHNICAL  
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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Co 57 ACTIVITY 1 nCi  
IDENT./SERIAL NO. C-633 LEAK TEST DATE 12/16/87  
SMEAR TAKEN BY D R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>—</u>	<u>2.0005</u>

uCi. (Wet)

Certified by

C.E. McIntosh  
(~~Todd~~ Health Physics Representative)

Bantrac Serv. Inc.

Date 12-21/87

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**SEALED SOURCE INTEGRITY TEST SERVICES**

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**CAUTION**

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2. Rubber gloves should be worn, especially when handling beta sources.
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5. If the "wet" patch dries out, it should be moistened by adding 1/2 cc of water, which renews its effectiveness for testing.

**TO PERFORM TEST**

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Replace the source back into its shielded container.
5. Place the plastic envelope, along with the completed "Leak Test Inventory and Report Form" in the supplied self-addressed envelope and mail to Todd Research & Technical Division.
6. Upon receipt of your completed data sheet and smears from your test kit, Todd Research & Technical Division will perform the necessary assay and evaluation and will issue a certification of the results. The certificate should be retained for review by your licensing authority upon request.

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PHONE - 713 - 744-7141**

ATTN: RAD-CON

CAUTION: Conduct a survey of the outside of each package placed in the U.S. Mails.  
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be mailed.

LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp, Metals Div  
Address P.O. Box 579 City Niagara Falls State NY Zip 14302  
ISOTOPE Pu 238 ACTIVITY 30 mCi  
IDENT./SERIAL NO. 7222/3 LEAK TEST DATE 12/16/81  
SMEAR TAKEN BY D.R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage under our Texas Radioactive Material License No. 11-871  
(copy available upon request).

Our findings show the leakage to be

ALPHA	BETA-GAMMA
1.0005	1.0005

uCi. (Wet)

Certified by

C.E. McIntyre

Date 12/21/81

(Todd Health Physics Representative)

SONTRAC SCVS, Inc.



## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

In special cases where a source is permanently fixed into a system, the closest and most accessible surface such as conical port, source housings, etc., may be taken as the smear area. The kit consists of one piece of filter cloth in a plastic zip-lip envelope, wet with our decontamination solution.

For license approval of our service, please refer to "Todd Research and Technical Division SIT-1 Kit" in your application to State of Texas, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on <sup>60</sup>Co up to 40 mCi and <sup>137</sup>Cs up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding ½ cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Place the plastic envelope, along with the "Leak Test Request and Report Form" in the supplied self-addressed envelope and mail to Todd Research and Technical Division.
5. Upon receipt of your completed data sheet and smears from your test, Todd Research and Technical Division will perform the necessary evaluation and will issue a certification of the results. The certificate should be retained for review by the Texas State Compliance Division upon request.

Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave City Niagara Falls State NY Zip 14202  
ISOTOPE Co 109 ACTIVITY 3 m Ci  
IDENT./SERIAL NO. A-762 LEAK TEST DATE ~~12/1~~ 6/16/81  
SMEAR TAKEN BY D.R. Braschler

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
	<u>Less than</u> <u>1.0005</u>

uCi. (Wet)

Certified by Todd L. Hunter Date 6/24/81  
(Todd Health Physics Representative)

TSC-RT-36  
Rev. 4  
5/1/80

UCCNHT0001385

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

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For license approval of our service, please refer to "Todd Research and Technical Division SIT-1 Kit" in your application to State of Texas, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on <sup>60</sup>Co up to 40 mCi and <sup>137</sup>Cs up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding ½ cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Place the plastic envelope, along with the "Leak Test Request and Report Form" in the supplied self-addressed envelope and mail to Todd Research and Technical Division.
5. Upon receipt of your completed data sheet and smears from your test, Todd Research and Technical Division will perform the necessary evaluation and will issue a certification of the results. The certificate should be retained for review by the Texas State Compliance Division upon request.

Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave. City Niagara Falls State NY Zip 14302  
ISOTOPE Fe 55 ACTIVITY 20 mCi  
IDENT./SERIAL NO. 23 LEAK TEST DATE 6/16/81  
SMEAR TAKEN BY D. R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>                    </u>	<u>less than</u> <u>1.0005</u>

uCi. (Wet)

Certified by

Shelma L. Hunter

(Todd Health Physics Representative)

Date

24 June '81

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

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For license approval of our service, please refer to "Todd Research and Technical Division SIT-1 Kit" in your application to State of Texas, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on  $^{60}\text{Co}$  up to 40 mCi and  $^{137}\text{Cs}$  up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding  $\frac{1}{2}$  cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
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3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Place the plastic envelope, along with the "Leak Test Request and Report Form" in the supplied self-addressed envelope and mail to Todd Research and Technical Division.
5. Upon receipt of your completed data sheet and smears from your test, Todd Research and Technical Division will perform the necessary evaluation and will issue a certification of the results. The certificate should be retained for review by the Texas State Compliance Division upon request.

Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN. RAD-CON

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave. City Niagara Falls State NY Zip 14302  
ISOTOPE Pu 238 ACTIVITY 304 Ci  
IDENT./SERIAL NO. 7222/3 LEAK TEST DATE 6/16/81  
SMEAR TAKEN BY D.R. Brander

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>less than</u> <u>1.0005</u>	<u>less than</u> <u>1.0005</u>

uCi. (Wet)

Certified by T.L. Hunter Date 6/24/81  
(Todd Health Physics Representative)

TSC-RT-36

UCCNHT0001389

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

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For license approval of our service, please refer to "Todd Research and Technical Division SIT-1 Kit" in your application to State of Texas, Division of Licensing, or the NRC Division of Licensing.

### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on  $^{60}\text{Co}$  up to 40 mCi and  $^{137}\text{Cs}$  up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding  $\frac{1}{2}$  cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
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5. Upon receipt of your completed data sheet and smears from your test, Todd Research and Technical Division will perform the necessary evaluation and will issue a certification of the results. The certificate should be retained for review by the Texas State Compliance Division upon request.

Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave. City Niagara Falls State NY Zip 14302  
ISOTOPE Co 57 ACTIVITY 1 mCi  
IDENT./SERIAL NO. C-633 LEAK TEST DATE 6/16/81  
SMEAR TAKEN BY D.R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
—	less than 5.0005

uCi. (Wet)

Certified by Helma L. Stenter  
(Todd Health Physics Representative)

Date 24 June '81



## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

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### CAUTION

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on <sup>60</sup>Co up to 40 mCi and <sup>137</sup>Cs up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding ½ cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
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Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave. City Niagara Falls State NY Zip 14302  
ISOTOPE Cd 109 ACTIVITY 3 mCi  
IDENT./SERIAL NO. A-962 LEAK TEST DATE 12/16/80  
SMEAR TAKEN BY D.R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>2.0005</u>	<u>2.0005</u>

uCi. (Wet)

Certified by T. Labrie Date 12/19/80  
(Todd Health Physics Representative)

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

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### CAUTION

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4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on  $^{60}\text{Co}$  up to 40 mCi and  $^{137}\text{Cs}$  up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding  $\frac{1}{2}$  cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

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Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave City Diagon Falls State NY Zip 14302  
ISOTOPE Co 57 ACTIVITY 1 m Ci  
IDENT./SERIAL NO. C-633 LEAK TEST DATE 12/16/80  
SMEAR TAKEN BY D.R. Brosnan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
2.0005	2.0005

uCi. (Wet)

Certified by T. Labrie Date 12/19/80  
(Todd Health Physics Representative)

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

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LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave. City Niagara Falls State NY Zip 14302  
ISOTOPE Pu 238 ACTIVITY 30 mCi  
IDENT./SERIAL NO. 7222/3 LEAK TEST DATE 12/16/80  
SMEAR TAKEN BY D. R. Broadman

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>1.0005</u>	<u>1.0005</u>

uCi. (Wet)

Certified by

J. Labrie

(Todd Health Physics Representative)

Date

12/19/80

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

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### TO PERFORM TEST

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P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

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be mailed.

LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave City Niagara Falls State NY Zip 14302  
ISOTOPE Fe 55 ACTIVITY 20 mCi  
IDENT./SERIAL NO. 23 LEAK TEST DATE 12/16/80  
SMEAR TAKEN BY D.R. Brosnahan

Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>2.0005</u>	<u>2.0005</u>

uCi. (Wet)

Certified by C. Labrie Date 12/19/80  
(Todd Health Physics Representative)



**TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION**  
**SEALED SOURCE INTEGRITY TEST SERVICES**

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

In special cases where a source is permanently fixed into a system, the closest and most accessible surface such as conical port, source housings, etc., may be taken as the smear area. The kit consists of one piece of filter cloth in a plastic zip-lip envelope, wet with our decontamination solution.

For license approval of our service, please refer to "Todd Research and Technical Division SIT-1 Kit" in your application to State of Texas, Division of Licensing, or the NRC Division of Licensing.

**CAUTION**

1. Portable survey instruments should be used during all smear testing.
2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on 60 Co up to 40 mCi and 173 Cs up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 c.c. of water, which renews its effectiveness for testing.

**TO PERFORM TEST**

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
3. Replace this smear in the plastic envelope marked "WET SMEAR ONLY" and reseal the zip-lip opening.
4. Place the plastic envelope, along with the "Leak Test Request and Report Form" in the supplied self-addressed envelope and mail to Todd Research and Technical Division.
5. Upon receipt of your completed data sheet and smears from your test, Todd Research and Technical Division will perform the necessary evaluation and will issue a certification of the results. The certificate should be retained for review by the Texas State Compliance Division upon request.

The cost of this service is based on the number of kits returned for assay at any one time. The price for 1 to 5 kits is \$9.00 each, this cost being possible by your remittance of payment with the leak test request, thereby eliminating billing cost. For larger quantities, a leak test price list is available upon request. Kits received that are not prepaid will cause a \$25.00 billing fee to be charged to all customers unless previous arrangements have been made i.e. purchase orders and etc.

UCCNHT0001400

Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN RAD-CON

CAUTION: Conduct a survey of the outside of each package placed in the U.S. Mails. Any reading over 0.5 mr/hr at contact with envelope or package shall not be mailed.

**LEAK TEST INVENTORY/REPORT FORM**

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 City Niagara Falls State NY Zip 14302  
Royal Ave.  
Isotope Cd 109 Activity 3 mCi  
Ident./Serial No. A-962 Leak Test Date 6/16/80  
Smear Taken By D. P. Brosnahan


Do Not Write Below This Line

This is to certify that the above described smear has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
	<u>&lt;.0005</u>

μCi. (wet)

Certified by   
(Todd Health Physics Representative)

Date 7-7-80

TSC-RT-36  
Rev. 3  
2/14/75

UCCNHT0001401

**TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION**  
**SEALED SOURCE INTEGRITY TEST SERVICES**

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For license approval of our service, please refer to "Todd Research and Technical Division SIT-1 Kit" in your application to State of Texas, Division of Licensing, or the NRC Division of Licensing.

**CAUTION**

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2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on 60 Co up to 40 mCi and 173 Cs up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding 1/2 c.c. of water, which renews its effectiveness for testing.

**TO PERFORM TEST**

1. Remove the source from its container and place it in a shielded area. (In those cases where it is impractical to remove a permanently fixed source from a special container, it is acceptable to make the smear on an accessible area adjacent to the source, for example, inside a conical beaming port. The source should be kept shielded while smearing the area.)
2. Remove the wet filter cloth from its envelope (by using the zip-lip opening) and thoroughly smear the source or the area of the source container which contacts the source.
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UCCNHT0001402

Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD - CON

.....  
CAUTION: Conduct a survey of the outside of each package placed in the U.S.  
Mails. Any reading over 0.5 mr/hr at contact with envelope or  
package shall not be mailed.  
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**LEAK TEST INVENTORY / REPORT FORM**

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Rte. 1 City Niagara Falls State NY Zip 14302  
Isotope Pu 238 Activity 30 mCi  
Ident./Serial No. 722213 Leak Test Date 6/16/80  
Smear Taken By D. R. Brosnahan

Do Not Write Below This Line  
.....

This is to certify that the above described smear has been assayed at  
our facilities for indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
<u>&lt;.0005</u>	<u>&lt;.0005</u>

µCi. (wet)

Certified by

J. Russell  
(Todd Health Physics Representative)

Date

TSC-RT-36  
Rev. 3  
2/14/75

455-00029

UCCNHT0001403

**TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION**  
**SEALED SOURCE INTEGRITY TEST SERVICES**

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**CAUTION**

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2. Rubber gloves should be worn, especially when handling beta sources.
3. Always use tweezers, tongs, forceps or handles to keep all sources at least one foot away; work with your arms extended.
4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on 60 Co up to 40 mCi and 173 Cs up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
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**TO PERFORM TEST**

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UCCNHT0001404

Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD - CON

.....  
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package shall not be mailed.  
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**LEAK TEST INVENTORY / REPORT FORM**

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave. City Niagara Falls State NY Zip 14302  
Isotope Co 57 Activity 1 mCi  
Ident./Serial No. C-633 Leak Test Date 6/16/80  
Smear Taken By D.R. Brosnahan

Do Not Write Below This Line  
.....

This is to certify that the above described smear has been assayed at  
our facilities for indication of source leakage.

Our findings show the leakage to be

- ALPHA	BETA-GAMMA
	<u>&lt;.0005</u>

μCi. (wet)

Certified by   
(Todd Health Physics Representative)

Date 7-7-80

TSC-RT-36  
Rev 3  
2/14/75

455-00029

UCCNHT0001405

## TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

### SEALED SOURCE INTEGRITY TEST SERVICES

The Todd Research and Technical Division SIT-1 Kit is designed for use with alpha or beta-gamma emitting sources or for low level gamma sources. It may also be used for testing large radiography gamma sources, where due to the potential radiation hazard, a smear is taken of the inside surface of the source housing, cable, etc., rather than the source capsule itself.

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### CAUTION

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4. Conduct a dry-run on all beta sources in excess of 1 mCi, gamma sources on  $^{60}\text{Co}$  up to 40 mCi and  $^{137}\text{Cs}$  up to 150 mCi, to assure that shielding is sufficient to limit the exposure of personnel doing the test.
5. If the "wet" patch dries out, it should be moistened by adding  $\frac{1}{2}$  cc of water, which renews its effectiveness for testing.

### TO PERFORM TEST

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Send all requests to:

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN: RAD-CON

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be mailed.

LEAK TEST INVENTORY/REPORT FORM

Company Name Union Carbide Corp., Metals Div.  
Address P.O. Box 579 4625 Royal Ave. City Niagara Falls State NY Zip 14302  
ISOTOPE Fe 55 ACTIVITY 20 mCi  
IDENT./SERIAL NO. 23 LEAK TEST DATE 6/16/80  
SMEAR TAKEN BY D. R. Brosnahan

Do Not Write Below This Line

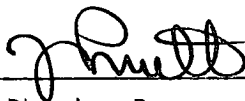
This is to certify that the above described smear has been assayed at our facilities for  
indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
	<u>&lt;.0005</u>

uCi. (Wet)

Certified by



(Todd Health Physics Representative)

Date 7-7-80



# TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

## SEALED SOURCE INTEGRITY TEST SERVICES

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UCCNHT0001408

Send all requests to

**TODD RESEARCH & TECHNICAL  
DIVISION  
P.O. BOX 1600  
GALVESTON, TEXAS 77553  
PHONE - 713 - 744-7141**

ATTN - RAD - CON

.....  
CAUTION: Conduct a survey of the outside of each package placed in the U.S.  
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package shall not be mailed  
.....

**LEAK TEST INVENTORY / REPORT FORM**

Company Name Union Carbide Corp, Metals Div  
Address PO Box 579 4625 Royal Ave City Niagara Falls State NY Zip 14302  
Isotope Cs - 137 Activity 50 mCi  
Ident./Serial No. CS - 2225 (stock) Leak Test Date 5/23/80  
Smear Taken By D.R. Brosnahan

Do Not Write Below This Line  
.....

This is to certify that the above described smear has been assayed at  
our facilities for indication of source leakage.

Our findings show the leakage to be

ALPHA	BETA-GAMMA
—	<.0005

µCi. (wet)

Certified by

F A Morgan  
(Todd Health Physics Representative)

Date 6-3-80

TSC-RT-36  
Rev. 3  
2/14/75

455-00029

UCCNHT0001409

# TODD SHIPYARDS CORPORATION RESEARCH & TECHNICAL DIVISION

## SEALED SOURCE INTEGRITY TEST SERVICES

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UCCNHT0001410